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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-----------------------------------|----------------------|------------------------|------------------|
| 10/560,302 | 12/12/2005 | Markus Schafheutle | 11885-00072-US | 3210 |
| | 7590 09/10/200 BOVE LODGE & HU | EXAMINER | | |
| P O BOX 2207 | | | NILAND, PATRICK DENNIS | |
| WILMINGTO | N, DE 19899 | | ART UNIT PAPER NUMBER | |
| | | | 1714 | |
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| | | • | MAIL DATE | DELIVERY MODE |
| | | • | 09/10/2007 | PAPER |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | Application No. | Applicant(s) | | | |
|--|--|--|--|-------------|--|--|
| Office Action Summary | | 10/560,302 | SCHAFHEUTLE ET AL. | | | |
| | | Examiner | Art Unit | | | |
| | | Patrick D. Niland | 1714 | | | |
| Period f | The MAILING DATE of this communication app or Reply | ears on the cover sheet w | ith the correspondence add | dress | | |
| WHI0 - Exte afte - If No - Fail Any | IORTENED STATUTORY PERIOD FOR REPLY CHEVER IS LONGER, FROM THE MAILING DATE of time may be available under the provisions of 37 CFR 1.13 or SIX (6) MONTHS from the mailing date of this communication. Or period for reply is specified above, the maximum statutory period vure to reply within the set or extended period for reply will, by statute, reply received by the Office later than three months after the mailing and patent term adjustment. See 37 CFR 1.704(b). | ATE OF THIS COMMUNI 36(a). In no event, however, may a vill apply and will expire SIX (6) MON cause the application to become A | CATION. reply be timely filed NTHS from the mailing date of this co BANDONED (35 U.S.C. § 133). | | | |
| Status | | | | | | |
| 1) 🛛 | Responsive to communication(s) filed on 26 Ju | ine 2007. | | • | | |
| | · | action is non-final. | | | | |
| 3)[| 3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the | | | | | |
| | closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213. | | | | | |
| Disposit | ion of Claims | | • | | | |
| 4)⊠ | Claim(s) 1-10 is/are pending in the application. | | | | | |
| ٠/ڪ | 4a) Of the above claim(s) is/are withdraw | 4 44 | | | | |
| 5) 🗀 | Claim(s) is/are allowed. | vii irom oonolacradon. | | | | |
| | Claim(s) <u>1-10</u> is/are rejected. | | | | | |
| 7) | Claim(s) is/are objected to. | | • | • | | |
| 8)□ | Claim(s) are subject to restriction and/or | r election requirement | • | | | |
| | | election requirement. | | | | |
| Applicat | ion Papers | | | | | |
| | The specification is objected to by the Examine | | | | | |
| 10) | The drawing(s) filed on is/are: a) acce | epted or b) Objected to | by the Examiner. | | | |
| | Applicant may not request that any objection to the | drawing(s) be held in abeyar | nce. See 37 CFR 1.85(a). | | | |
| | Replacement drawing sheet(s) including the correcti | ion is required if the drawing | (s) is objected to. See 37 CF | R 1.121(d). | | |
| 11) | The oath or declaration is objected to by the Ex | aminer. Note the attached | d Office Action or form PT | O-152. | | |
| Priority (| under 35 U.S.C. § 119 | | . ' | • | | |
| | Acknowledgment is made of a claim for foreign All b) Some * c) None of: | | § 119(a)-(d) or (f). | | | |
| | 1. Certified copies of the priority documents | | | | | |
| | 2. Certified copies of the priority documents | | | | | |
| | 3. Copies of the certified copies of the prior | , , | received in this National S | Stage | | |
| | application from the International Bureau | | | | | |
| , * (| See the attached detailed Office action for a list | of the certified copies not | received. | | | |
| | • | | , | | | |
| A44a-4 | Ma) | • | | | | |
| Attachmer 1\⊠ Noti | et(s) ce of References Cited (PTO-892) | ∧ □ | 2 | | | |
| | ce of Draftsperson's Patent Drawing Review (PTO-948) | | Summary (PTO-413) s)/Mail Date. | • | | |
| 3) Information Disclosure Statement(s) (PTO/SB/08) 5) Notice of Informal Patent Application | | | | | | |
| Pape | er No(s)/Mail Date | 6) | <u>—</u> · | | | |

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1. Claims 1-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A. It is unclear what the scope of "aldehyde-type" and "ketone-type" are. It would appear that a moiety is either ketone or aldehyde or not. It is therefore unclear what is intended by the modifier "type", more specifically what other moieties are considered to be "aldehyde-type" and "ketone-type". The Chemical Dictionary citation is unnecessary as there is no question as to what is meant by ketone and aldehyde. The question is one of what other groups are intended by the applicant to be allowed into the recited carbonyl types other than merely ketone and aldehyde carbonyl groups and if there are only ketone and aldehyde carbonyl groups to be encompassed by the instant claims why modify the terms by "type"? See MPEP 2173.05(b) [R-5] Relative Terminology E. "Type"

The addition of the word "type" to an otherwise definite expression (e.g., Friedel-Crafts catalyst) extends the scope of the expression so as to render it indefinite. Ex parte Copenhaver, 109 USPQ 118 (Bd. App. 1955). Likewise, the phrase "ZSM-5-type aluminosilicate zeolites" was held to be indefinite because it was unclear what "type" was intended to convey. The interpretation was made more difficult by the fact that the zeolites defined in the dependent claims were not within the genus of the type of zeolites defined in the independent claim. Ex parte Attig, 7 USPQ2d 1092 (Bd. Pat. App. & Inter. 1986).

The applicant's arguments and specification do not clear up what modification of aldehyde or ketone is intended by "type".

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- B. It is unclear how claim 5, "2,2-dimethyl-3-hydroxypropionaldehyde" meets the requirements regarding –X- of claim 1. In the alternative, it is unclear what is intended particularly by the requirements of –X- of claim 1 if "2,2-dimethyl-3-hydroxypropionaldehyde" meets the requirements regarding –X- of claim 1.
- 2. Claims 1-10 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The changing of "like" to "type" in the instant claims is not supported by the specification as filed. The applicant's representative argues that "type" is a better translation of the priority document. However, there is no certified translation to support this contention. The change in scope is therefore new matter.
- 3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- 4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 5. Claims 1-4 and 7-9 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent Application Publication US 2002/0040093 Hobel et al.

Hobel discloses the instantly claimed inventions at the abstract; sections [0012]-[0014]; [0018]-[0024] which encompasses the instantly claimed components A, B, D, E, F, and G where the 5-hydroxy pentanal and 3,7,dimethyl-7-hydroxyoctanal of section [0040] falls within the scope of compound F and the isophorone diamine and 1,2-propane diamine of section [0042] falls within the scope of compound G as do the monofunctional compounds of section [0043]; and the diamine of section [0046] falls within the scope of the instantly claimed crosslinking agent. See the remainder of the document. Based on the definition of "average molecular weight" there will be moieties falling within the scope of the instant claim 3 in the compositions discussed above necessarily within the scope of this claim. The method of Hobel is that of the instant claim 7. Hobel is silent regarding the Stradinger Index as are most references to prepolymers. The burden is on the applicant to show that the prepolymer of the reference does not necessarily have such as Staudinger index given the extreme breadth of the instantly claimed Staudinger index and the fact that the polyurethane of the reference is so similar to the instantly claimed polyurethane.

6. Claims 1-4 and 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent Application Publication US 2002/0040093 Hobel et al.

Hobel discloses the instantly claimed inventions at the abstract; sections [0012]-[0014]; [0018]-[0024] which encompasses the instantly claimed components A, B, D, E, F, and G where the 5-hydroxy pentanal and 3,7,dimethyl-7-hydroxyoctanal of section [0040] falls within the scope of compound F and the isophorone diamine and 1,2-propane diamine of section [0042] falls within the scope of compound G as do the monofunctional compounds of section [0043]; and the diamine of section [0046] falls within the scope of the instantly claimed crosslinking

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agent. See the remainder of the document. Based on the definition of "average molecular weight" there will be moieties falling within the scope of the instant claim 3 in the compositions discussed above necessarily within the scope of this claim. The method of Hobel is that of the instant claim 7. Hobel is silent regarding the Stradinger Index as are most references to prepolymers. The burden is on the applicant to show that the prepolymer of the reference does not necessarily have such as Staudinger index given the extreme breadth of the instantly claimed Staudinger index and the fact that the polyurethane of the reference is so similar to the instantly claimed polyurethane.

It would have been obvious to one of ordinary skill in the art at the time of the instant invention to use the above discussed combinations of ingredients in the coatings of Hobel because they are encompassed by Hobel and would have been expected to give the benefits disclosed by Hobel.

7. Claims 5-6 and 10 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

The prior art considered does not disclose the limitations of these claims nor provide rationale to modify the disclosed compositions into those of the instant claims.

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

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MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patrick D. Niland whose telephone number is 571-272-1121. The examiner can normally be reached on Monday to Thursday from 10 to 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan, can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Patrick D. Niland Primary Examiner Art Unit 1714